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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,493	06/24/2003	Jeffrey Robert Perry	50019.222US01/PO5531	3527
23552	7590	10/09/2007		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER KIK, PHALLAKA	
			ART UNIT 2825	PAPER NUMBER
			MAIL DATE 10/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/603,493

Applicant(s)

PERRY ET AL.

Examiner

Phallaka Kik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action responds to RCE and amendment filed on 9/13/2007. Claims 1-22 are pending, wherein claims 1,11,16,22 have been amended.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/13/2007 has been entered.

Claim Objections

3. **Claim 22** is objected to because of the following informalities:

"the thermal simulation and the electrical simulation" (line 22) should be --thermal simulation and electrical simulation-- for proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-7,9-22** are rejected under 35 U.S.C. 103(a) as being obvious over **Perry et al.** (US Patent No. 6,931,369) in view of **Lin et al.** (U.S. Patent No. 6,980,211).

The applied reference has common inventors/assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

As per **claims 1,11,16,22**, the establishing of the connection between the client and server is described in col. 3, line 19 to col. 5, line 46; the automatically determining is described in col. 9, lines 24-34, wherein the thermally enabled components identification/indicator is described in col. 9, lines 35-47; the schematic generation and display is described in col. 12, lines 32-50, wherein the wire (i.e., interconnect) components and electrical components being movable and selectable are further

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described in col. 14, lines 17-48, wherein the modification of the schematic is further described in col. 18, lines 29-35; col. 14, lines 25-48; col. 15, lines 6-19, to which the electrical and thermal simulations are applied (col. 13, line 5 to col. 14, line 16; col. 14, lines 25-48; col. 6, lines 6-19), wherein the system, apparatus and computer readable medium are further described in col. 5, lines 47-60 and col. 6, lines 47-68. However, **Perry et al.** failed to specifically teach that the endpoint of the selectable wire is independently moveable. **Lin et al.** teach the use of endpoints or start points and their positions for defining interconnects or wirings, connecting the circuit component(s) in the schematic diagram in order to allow the schematic diagram to be edited and properly displayed (see col. 1, lines 32-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to further incorporate the use of endpoints or start points and their positions as taught by **Lin et al.** into the method/system of **Perry et al.** because incorporation would allow the schematic diagram of **Perry et al.** to be properly edited and placed at the desired position/location.

As per **claim 2**, all of the elements of claim 1 are discussed in the rejection of claim 1, from which the claim depends, wherein **Lin et al.** also allows the endpoints or start points to be moved to the desired location (col. 2, lines 7-12); thereby adapting the keeping track of the endpoints/start points (i.e., the particular endpoint determination for moving and moving that endpoint of the wire component) as part of the modification of the circuit as described in col. 14, lines 25-35 of **Perry et al.**, to allow the wires to be placed at the desired position/location.

As per **claims 3-5,12-14,17-19, Perry et al.** disclose all of the elements of claims 1,16 are discussed in the rejection of claims 1,16, from which the respective claims depend. wherein **Perry et al.** further disclose the palette of choices being provided to the user for choosing, the particular components being available for selection and modification (i.e., adjustments) as described in col. 14, lines 17-34; col. 9, lines 35-47.

As per **claims 6-7**, all of the elements of claim 1 are discussed in the rejection of claim 1, from which the claim depends. **Lin et al.** further teach the scaling of the schematic to provide different level of detail, including the use of panning and scanning as described in col. 7, lines 8-39. It would have been further obvious to one of ordinary skilled in the art at the time of the invention to incorporate the scaling, including the use of panning and scanning as taught by **Lin et al.** into the method/system of **Perry et al.** because such incorporation would further allows the user to more easily interactively visualize, design and analyze the circuits.

As per **claims 9,15,20, Perry et al.** disclose all of the elements of claim 1,16 are discussed in the rejection of claims 1,16, from which the respective claims depend. However, **Perry et al.** failed to specifically teach the netlist generation as claimed. **Lin et al.** teach the use of netlist generation being part of the schematic generation to keep track of the components, their interconnections and modifications thereof. It would have been further obvious to one of ordinary skilled in the art at the time of the invention to incorporate such netlist generation as taught by **Lin et al.** as part of the method/system of **Perry et al.** because such incorporation would allow the method/system of **Perry et**

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al. to keep track of the various circuit components and their interconnections, and their changes, in the generated schematic of **Perry et al.**.

As per **claims 10,21**, the component connectivity list must necessarily be generated in order to for the simulation results to trace the wires/interconnects as further described in **Perry et al.**, col. 15, lines 35-64.

6. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perry et al.** (US Patent No. 6,931,369) in view of **Lin et al.** (U.S. Patent No. 6,980,211) and **Schmidt et al.** (US Patent No. 6,904,571).

As per **claim 8**, **Perry et al.** in view of **Lin et al.** disclose all of the elements of claim 4, from which the claim depends, as discussed in the rejection of claim 4 above. However, **Perry et al.** in view of **Lin et al.** failed to specifically teach providing the grid to aid placement of the component within the schematic. **Schmidt et al.** teach the providing the grid to help user (i.e., engineer) interactive placement of the circuit as part of the schematic editor being implemented in the networking environment (i.e., the internet) (col. 4, line 61 to col. 5, line 3; col. 12, lines 46-65). It would have been obvious to one of ordinary skilled in the art at the time of the invention to further incorporate providing the grid as taught by **Schmidt et al.** into the system/method of **Perry et al.** in view of **Lin et al.** because such incorporation would make it easier for the user to place the desired circuit at the desired location as taught by **Schmidt et al.** for which the system/method of **Perry et al.** in view of **Lin et al.** have the means to support, while benefiting from the combined teachings of **Perry et al.** in view of **Lin et al.**.

Remarks

7. The rejections of **claims 1-7,9-22** under 35 U.S.C. 103(a) as being unpatentable over **Yen et al.** ("A Web-Based, Collaborative, Computer-Aided Sequential Control Design Tool", IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp. 14-19) in view of **Lin et al.** (U.S. Patent No. 6,980,211) and **Jakatda et al.** (US Patent Application Publication No. 2003/0163295) are withdrawn in light of Applicant's amendment filed on 9/13/2007, wherein as pointed out by Applicant, the prior arts made of record failed to teach or suggest the automatically determining components in which thermally enabled components are identified as thermally enabled when presented on the client, as newly claimed. However, as given in the new rejection above, the claims are not patentable over **Perry et al.** (US Patent No. 6,931,369) in view of **Lin et al.** (U.S. Patent No. 6,980,211), wherein the method/system of **Lin et al.** is still applicable to the teachings of **Perry et al.**.

8. The rejection of **claim 8** under 35 U.S.C. 103(a) as being unpatentable over **Yen et al.** ("A Web-Based, Collaborative, Computer-Aided Sequential Control Design Tool", IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp. 14-19) in view of **Lin et al.** (U.S. Patent No. 6,980,211), **Jakatda et al.** (US Patent Application Publication No. 2003/0163295) and **Schmidt et al.** (US Patent No. 6,904,571) is withdrawn in light of Applicant's amendment filed on 9/13/2007, wherein as pointed out by Applicant, the prior arts made of record failed to teach or suggest the automatically determining components in which thermally enabled components are identified as thermally enabled when presented on the client, as newly claimed. However, as given in the new rejection

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above, the claims are not patentable over **Perry et al.** (US Patent No. 6,931,369) in view of **Lin et al.** (U.S. Patent No. 6,980,211) **Schmidt et al.** (US Patent No. 6,904,571), wherein the methods/systems of **Lin et al.** and **Schmidt et al.** are still applicable to the teachings of **Perry et al.** for the reasons indicated.

9. Applicant should note that although, **Jakatda et al.** (US Patent Application Publication No. 2003/0163295) is not used in the rejection, the teachings that both electrical and thermal simulations that can be performed on different computers over the computer network (i.e., on computer that is different from the client) (see paragraphs [0036] and [0045]) could also be applicable to the method/system of **Perry et al.**.

10. Applicant should also note that although **Perry et al.** (US Patent No. 6,678,877) is not used in the rejection, the prior art can be similar rejected since its content is similar to **Perry et al.** (US Patent No. 6,931,369). Therefore, any statement/affidavit/showing to remove or disqualify the prior art **Perry et al.** (US Patent No. 6,931,369) should also apply to the prior art **Perry et al.** (US Patent No. 6,678,877).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested herein to consider them carefully in response to this Office Action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Friday, 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

571-273-8300

/Phallaka Kik/
Primary Examiner, A.U. 2825
September 26, 2007